

Reminders 2-21-08:

- Next Webassign Due February 26**
- Electric Energy Conceptual Questions Due 2/26**
- Start Reading Chapter 17&18**

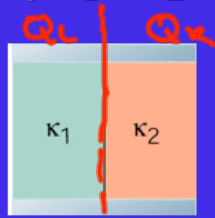
Objectives:

- Electric Circuits**
- Ohm's Law**

Capacitors

- A parallel plate capacitor is shown below. The area of each plate is A . Each dielectric takes up half the region between the plates. Show that

$$C = \epsilon_0 (\kappa_1 + \kappa_2) A / 2d$$



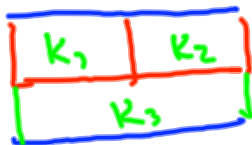
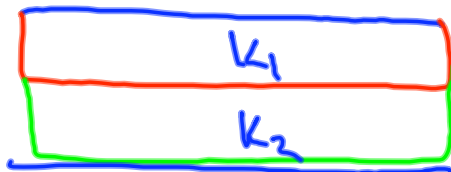
$$C = \frac{\kappa \epsilon_0 A}{d}$$

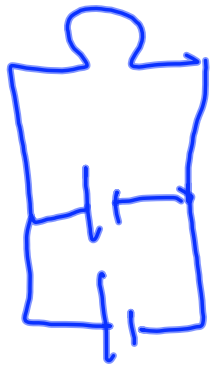
$$C_L = \frac{\kappa_1 \epsilon_0 \frac{A}{2}}{d}$$

$$C_R = \frac{\kappa_2 \epsilon_0 \frac{A}{2}}{d}$$

$$C_T = C_L + C_R = \frac{\kappa_1 \epsilon_0 A}{2d} + \frac{\kappa_2 \epsilon_0 A}{2d}$$

$$\frac{\epsilon_0 A}{2d} (\kappa_1 + \kappa_2)$$





Brighter

